DATE: June 23, 2005

TO: Select Committee

FROM: Allan Odden and Larry Picus

SUBJECT: **Synthesis of Information from the Professional Judgment Panels, June 2005**

On June 7, 8 and 9, 2005, staff from Lawrence O. Picus and Associates, together with staff from the Legislative Service Office, conducted three professional judgment panel meetings in Douglas (June 7), Thermopolis (June 8) and Rock Springs (June 9). We met with about 170 Wyoming educators nominated by members of the Select Committee, school district superintendents and education support organizations. These individuals represented all 48 Wyoming school districts. Panel members were asked to review the May 30 working draft of the recalibration report prepared by Lawrence O. Picus and Associates. The May 30 draft reflected the initial work of Picus and Associates as well as the recommendations that emerged from the May 26-27, 2005 meeting of the Select Committee.

The purpose of these meetings was to seek the best professional judgment of these individuals as to the applicability of the recalibration recommendations in the May 30 report to the Select Committee. A total of 170 people attended the three PJP sessions. The table below summarizes the number who attended sessions at each location – Douglas, Thermopolis and Rock Springs – and indicates the number of central office administrators, site administrators, teachers and other personnel at each location and overall.

Position	Douglas	Thermopolis	Rock Springs	Total
Central Office	20	24	14	58
Site Administrator	7	9	6	22
Teacher	24	24	19	67
Other	9	6	8	23
Total	60	63	47	170

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In each city, those attending were divided randomly into two groups. Before moving into their separate rooms, representatives from Lawrence O. Picus and Associates explained the recalibration process and the evidence-based approach to recalibration. Panelists were told that we were seeking their professional judgment on every item in the May 30, 2005 version of the recalibration report. They were reminded that when they made suggestions for changes to the recommendations in the recalibration report, we were seeking specific programmatic recommendations, the rationale for the proposed change, and evidence that bolstered the rationale.

For the remainder of the day, each panel was facilitated by three individuals associated with Lawrence O. Picus and Associates: Drs. Larry Picus or Allan Odden, the lead partners, along with Dr. Mark Fermanich, Mr. Rich Seder, Mr. Michael Goetz, and Dr. Zena Rudo. Generally, Seder and Goetz documented the process while Fermanich and Rudo served as co-moderators of the panel sessions along with Odden and Picus. To insure that the views of our staff did not have undue influence on the panel recommendations, different combinations of staff from Picus and Associates were used each day. In addition, Dave Nelson and Mary Brynes from the Legislative Service Office observed the sessions.

This memo summarizes and synthesizes the major comments and suggestions that emerged from the six Professional Judgment panels. As requested by the Select Committee it also contains our recommendations to the Select Committee for dealing with the various proposals.

We would like first to publicly thank all of the individuals who participated in the Professional Judgment panels: they came prepared, they were knowledgeable, they provided our team with multiple insights about the Wyoming education system and made excellent suggestions for how we could tailor the recommendations in the draft report to better fit the Wyoming context. They were passionate about improving the Wyoming education system, and they participated with energy, intelligence and enthusiasm each day. Our synthesis follows by topic area.

Full Day Kindergarten (May 30 draft, p. 12)

All six panels enthusiastically endorsed the recommendation for full day kindergarten.

Prototypes (May 30 draft, p. 13)

All six panels basically endorsed our beginning with school prototype configurations at grades K-5, 6-8 and 9-12. The panels also encouraged us to develop the following additional prototypes:

- K-12
- K-8
- 7-12

All six panels also strongly endorsed our efforts to show prototypes at ADM counts less than the original, modified 288 elementary, 315 middle and 630 high school models, thus reinforcing the recommendation on this issue made by the Select Committee during the May 26-27, 2005 meeting. Thus, we will develop resource estimates for the following prototypes:

Elementary:	K-5 at ADM of 288, 192, and 96
Middle:	Grades 6-8 at ADM of 315, 210, 105
High:	Grades 9-12 at ADM of 630, 315, 210, 105, and a model for high school Alternative Learning Environments.

We have begun development of additional prototypes for small schools in the following configurations:

- K-12
- K-8
- 7-12

The appendix to this report provides our initial thinking about how to structure and resource these prototypes.

In Table M1 at the end of this report, we provide estimates of the resources needed at each school size and type that we believe will enable the students at the school to meet the Wyoming student standards as identified in the Educational basket.

This document does not have similar detail for schools smaller than 105 at the middle and high school levels, nor elementary schools smaller than 96 students. During our PJP sessions we realized that before we can develop models that will meet the needs of students in these small schools, it would be helpful to meet with representatives of small schools and districts to better understand their needs. These meetings are currently scheduled to take place in early August.

Class Size (May 30 draft, p. 18)

There was strong consensus for retaining the current class sizes for calculating core teachers at 16 for elementary schools, and 21 for secondary schools, including both middle and high schools. Although a few individuals recommended that secondary class sizes be reduced to18 similar recommendations did not emerge from other panels, and most panels endorsed the 16 and 21 figures. Thus, *we recommend that Wyoming continue with the current class sizes of 16 for elementary schools, and 21 for middle and high schools*.

The panels also endorsed the use of this formula for determining the number of core teachers in the 96 student, 192 student and 288 student elementary school, in the 105 student, 210 student

and 315 student middle school, and in the 105 student, 210 student, 315 student and 630 student high school prototype.

However, virtually every panel also raised several issues about how to calculate the number of teachers when the number of students was not so neatly divided by 16, particularly at each grade level for a school. For example, if an elementary grade had 16 students, a 1.0 FTE teacher position is provided. But panels asked what would happen if there were 17 students? Would that trigger an additional full FTE teacher, or just a small fraction of an additional teacher? We responded that the formula would trigger just the additional fraction. Several panel members were not pleased with that response. Some panel members urged us to propose "rounding up" each calculation so that any small fraction would produce an additional 1.0 FTE teacher; this would allow an elementary school with 17 students to trigger 2.0 FTE teacher positions. But several panel members stated that that approach was too generous – that the additional teacher should be triggered at 19 or 20. We are concerned that approach would run into problems with the Supreme Court, which does not like so called "step" formulas, as the state would find it difficult to distinguish clearly between a grade with 19 students that triggered just 1.0 FTE teacher and a grade with 20 students that triggered 2.0 FTE positions. A formula that simply calculated FTE teachers to the nearest hundredth by dividing the ADM by 16 (or 21 for middle and high schools) would solve the "step" function problem but not the numbers of students in the class problem.

The issue here is how students are grouped for instruction. If students are grouped by grade level, the fact that each grade level does not have a number of students evenly divided by 16 or 21 produces a student placement and number of teachers issue. On the other hand, if schools adopt a multi-age approach, and in elementary schools, for example, create K-1, 1-2, 2-3, 3-4, and 4-5 classes[1] then it would be much easier to create classrooms of approximately 16 students, regardless of the specific number of students in each grade. This approach also would allow for differential placement of students according to their developmental progress, since it is a truism that there is great variability among elementary students in their academic development, a phenomenon that grade level grouping of students ignores.

Furthermore, research shows that multi-aging of students in elementary classrooms actually is better for students; students in multi-age classrooms achieve at least as much as students in age-grouped classes and often times learn more (Gutierrez & Slavin, 1992; Mason & Burns, 1996; Madon & Stimson, 1996; Pavan, 1992; Veenman, 1995). The reasons for the better achievement are at least two fold. First, as just stated, classes can be organized so that the academic development of children in each class is more homogeneous thus allowing teachers to provide more whole group instruction, which allows teachers to provide more instruction during each day. Second, if teachers stay with a student group over a two year time period, a process called "looping," then the teacher knows the student for the second year and less time as lost in starting the school year, determining how to organize and manage the class, and learning the academic achievement status of each student.

[1] Or in the case of smaller schools, groupings such as K-1, 2-3 and 4-5.

Multi-aging with looping, though, works only if the teacher instructs the entire class as a group and essentially has a two-year curriculum that all students are taught over a two year time period. Multi-age classrooms run as "combination" classes, in which the teacher provides half a day of instruction for one grade, and instruction for the other half of the day to the second grade, actually is a detriment to student learning, in part because each student receives only a half day instead of a full day of instruction. So the way multi-age classrooms are taught is key to whether they are more or less effective for students.

The fact that multi-aging is a preferred approach to grouping students for instruction, at least in the elementary grades, is reflected by some states "mandating" multi-age grouping of students, a practice in Kentucky, for example. Though we are not even hinting that Wyoming should mandate multi-aging of students, we are stating that such an approach is a very effective way to group students for instruction and addresses the fact raised by many of the professional judgment panels that the number of students in each grade divided by 16 or 21 is not whole number, thus making age grouping of students problematic. We are suggesting that the answer is multi-age grouping of students, not providing more teacher resources.

Some panelists stated that they did not "believe" in multi-age grouping of elementary students. The Select Committee will need to decide the degree to which it wants to fund the education system on the basis of local educators' personal beliefs or philosophies. Our perspective is that evidence and documented best-practices should determine both local practice and funding provisions.

Thus, despite that fact that nearly all panels raised this issue, *we recommend that the Select Committee calculate core teachers for elementary schools by dividing the school's ADM by 16 and for middle and high schools, by dividing the school's ADM by 21, and letting schools determine how to group students for instruction given the teacher resources this formula produces*.

Nearly all groups also raised the issue of smaller class sizes for advanced courses in high school – e.g., pre-calculus, calculus, advanced placement classes, etc. We suggested that one reason demand for advanced classes often was low was that too few students took a solid core of academic classes when beginning high school – algebra, geometry, etc. – and that a better solution was to require more students to take solid academic classes in grades 9 and 10 so that they would be eligible or prepared for advanced courses in their junior and senior year. We also stated that distance learning, the Wyns Videos, and internet courses could provide instruction in advanced courses for many students, at least those in remote high schools. Nevertheless, most panel members still believed additional teaching resources needed to be provided so that they could offer advanced academic classes to numbers of students lower than the 21 that triggered each teacher position. Our recommended solution to this is partially embodied in a modification of our recommended formula for calculating specialist teachers, which is covered in the next section, and a possible "census" approach for providing additional teachers for both advanced academic classes and vocational education programs.

Specialist Teachers (May 30 draft, p. 26)

Our initial recommendation was to determine the number of specialist teachers by multiplying the number of core teachers by 20 percent. Our assumption was that in middle and high schools, students enrolled in six classes a day and teachers provided instruction for 5 periods. We used this same proportional formula for elementary school teachers. The intent was to insure that sufficient numbers of additional teachers were provided for specialist classes and that time was available for a planning and preparation period (or hour) for every teacher, and that all classes could average 16 (elementary) or 21 (middle and high school) students. It should be noted that the formula that provides an additional 20 percent of specialist teachers is more generous than the current prototype, which assumes a 7 period day with each teacher required to teach for 6 periods.

Just as this recommendation lead the Select Committee into a discussion of various school schedules, and various numbers of daily class periods and teachers' instructional responsibilities, similar issues and discussions emerged in all of the Professional Judgment Panels as well. It became clear in the course of our meetings with the professional judgment panels that very few middle and high schools had a 6 period day with teachers providing instruction for 5 of those periods. Most schools had a 7 period day, many had 8 period days, and some had the Block Schedule with each of four blocks lasting 90 minutes and teachers teaching three blocks a day.

The major reason given for the 7 and 8 period day was the belief it was the only way a school could teach the education basket, provide the range of elective courses that schools believed students should have available to them and provide sufficient courses to meet district high school graduation requirements. Many schools, particularly high schools, believed that the 6 period day would not allow them to provide sufficient vocational education programming. Further, many high schools, even small high schools, wanted to provide more than the minimum two vocational education programs, and most did – particularly if business courses with word processing and life sciences were included. Indeed, all panels felt pressure from the state to provide a range of elective and vocational education programs, a pressure that compelled them to organize 7 and 8 period days.

Although there was some discussion, also reflected in the recalibration report, that providing more electives was not the best route to having students perform at higher levels in the subjects of reading/English/language arts, mathematics, science and history, panelists nevertheless claimed that the state was increasing pressure to expand electives. One panel stated that this state pressure was at odds with NCLB pressure for greater student performance in the four core subjects noted above in this paragraph, and that perhaps a reduction in the push for more electives would be a route to focus more on the core subjects and not have a 7 or 8 period day.

But we want to make the Select Committee aware that all panels felt the pressure for more electives and for more vocational education programming. Responding to these pressures, moreover, led to a request for more specialist teachers, as the ability to offer electives and more

than two vocational education programs could not be accommodated easily, if at all, with the proposed 20 percent formula for specialist teachers. The panels provided us with several examples of schools that had 7 period days in which teachers were required to teach for 5 periods. Fully funding this organizational approach requires an additional 40 percent more specialist teachers over the core teachers generated based on a school's ADM. Panelists also convinced us that for the 105 student middle and high school prototypes, an additional 40 percent of specialist teachers was needed to provide instruction to meet the current minimum requirements.

In addition, many panel members argued that at the high school the Educational Basket should be more rigorous, demanding 4 years of instruction in all four core areas (English, math, science, social studies) as well as providing resources to offer several electives, including vocational education. This approach, especially requiring 4 core subject courses for each year of high school, would help emphasize the importance of teaching all students to higher performance levels in these academic areas.

For all these reasons, *we believe the Committee should consider altering the specialist teacher formula from 20 percent of core teachers to 40 percent of core teachers*. This recommendation is contingent upon the Committee's agreeing with both the state's and local districts' desire to provide more electives and vocational education. If the Committee wanted to de-emphasize this preference for electives, and emphasize core subjects more, then perhaps the 20 percent initial recommendation would suffice.

Combined with the formula for core academic teachers, the 40% formula would provide more teacher resources for all schools. This would help schools accomplish five objectives:

1. It would allow schools to go beyond the minimum academic requirements of the Education Basket, a desire of many panelists.

2. It would allow schools more flexibility to provide class sizes closer to the 16 and 21 figures given the variability in actual student enrollments.

3. It would allow schools to provide more elective and vocational education courses.

4. It would provide enough additional teaching resources in terms of the sum of core and specialist teachers to enable schools to offer more advanced academic classes even when enrollments for those courses are below 21.

5. It would allow the formulas for core and specialist teachers to "work" for prototypical schools down to 96 elementary students and 105 middle and high school students.

We should note that this 40 percent specialist teacher formula fully funds a 6/5, 7/6, 7/5 8/6 and 4/3 Block Schedule. It provides enhanced flexibility to teach more academic courses at the high school and middle school and allows high schools and even middle schools to offer more

elective and vocational courses. Though different schools will use these teachers in different ways to address these issues, we believe that given the multitude of issues raised by the various panels, this specialist teacher formula modification is the most straightforward and effective way to accommodate all of these concerns while maintaining the tradition of local control that is so important to Wyoming education. On the other hand, if the Committee does not support the desire to provide more electives and vocational education, then a 20 percent formula would suffice.

A consequence of this increase in the number of specialist teachers is the formula now provides sufficient teacher resources for all schools with ADM of 96 or above at the elementary level and 105 or above at the middle and high school level. This eliminates the need for a small school adjustment for staffing at enrollment levels exceeding these prototype sizes, and provides a rationale (requested by the Court in *Campbell I*) for the use of small school adjustments for schools with fewer students. But it must be noted that we have substantially reduced the need for small school adjustments to staffing. We believe that the 16 and 21 formulas for calculating core teachers and the use of 40 percent to estimate the number of specialist teachers helps resolve a number of issues with regard to staffing smaller schools and for offering more electives. However, as described above, we believe research suggests less emphasis on a wide variety of electives and more time spent on direct instruction in the core subject areas. That logic has led us to use a 20 percent specialist figure (or in some cases a 33 percent specialist figure for high schools where a block schedule is being supported).

We point out here that using a 40 percent figure will substantially increase the number of teachers in the model, and likely lead to higher costs. We believe this is a matter that the committee needs to consider in more depth during its meetings on June 30 and July 1 before a final decision is made.

Instructional Facilitators (May 30 draft, p. 29)

There was strong consensus support for the recommendation to include instructional facilitator positions at each school. Although a few panelists wanted to target a portion of the proposed instructional facilitator FTE for technology help, most supported the initial proposal that allows districts and schools to identify locally the specific responsibilities of the instructional facilitators. This could include helping teachers embed technology into the curriculum if that were an important local need.

Several panelists proposed having a minimum FTE for facilitators. *We agree with that logic and recommend a minimum of 0.5 Facilitators for the 96 ADM elementary and 105 ADM middle and high school prototypes.*

At-Risk Student Programs and Staffing (May 30 draft, p. 30)

There was strong, nearly unanimous support for the at-risk student program and staffing recommendations. Three issues and suggestions for change were raised, two of which led us to modify our recommendations.

First, all panels suggested that resources for extended day and summer school programs be provided for all elementary grades rather than just for students in grades four and five as we originally recommended. Indeed, several elementary teachers and principals said that early intervention was most important for students in grades K-3 and stated that when they had provided extended day and/or summer school programs for these students, the students attended the program, parents supported the program and the students did better the next year.

We recommend that the extended day and summer school resources be provided for all grades, including grades K-3, which we initially had excluded from these resources.

Second, both panels in Rock Springs urged that our ELL formula be changed from an additional 0.4 to an additional 1.0 FTE for each 100 ELL students. School districts represented in the Rock Springs panels had the highest incidence of ELL students in their schools, claiming that in some instances ELL students represented 30 to 40 percent of the district's enrollment. In an especially informative interaction with the superintendent and middle school principal from Teton County, we learned that the school was providing ESL, i.e., English as a second language, class to its ELL students instead of an alternative class offering during the school's 7 period daily schedule. Although initially, we believed that strategy did not require any additional resources – ELL students were simply taking an ESL class (yes, the teacher needed ESL skills) rather than another class – we came to understand that additional resources for this strategy are necessary. Because the district has determined that the ELL students are best served through three levels of ESL classes (each taught during a different period of the day) enrollment in any one of those classes is insufficient to enable the school to reduce the number of non ESL classes in that time slot. Instead, between two and four ELL students are pulled from each class. ESL classes are organized to accommodate the number of students requiring service, and additional teacher resources are needed to meet this need.

Although there may be the potential to cancel some classes if sufficient numbers of the same class have sufficient numbers of ELL students pulled out, it was generally agreed that if the ELL formula were changed to trigger an additional 1.0 FTE position for every 100 ELL students, the staffing resources would be sufficient to allow the provision of the ESL class. We concur with this recommendation. We should note that this school was providing structured English immersion for all ELL students, with ESL as an additional course, and not a bilingual education program, and believed that that service strategy was state-of-the-art servicing, a claim with which we agree. Thus, the pull-out class provided ELL students with an additional "dose" of English instruction, reinforcing the key goal of the program as having the ELL students learn English so they could continue their schooling in English language instruction classrooms.

We recommend, that the ELL formula be changed from providing an additional 0.4 to an additional 1.0 FTE for every 100 ELL students.

Third, some panelists wanted to have a different variable for indicating the number of students at-risk, and suggested using test scores, which directly indicated the number of students achieving below proficiency. A few other panelists suggested using the percent free and reduced price lunch percentage in elementary schools for middle and high schools as well. But after discussing the pros and cons of these alternatives, most concluded that the current unduplicated count was the best of a set of imperfect options.

Two additional issues surfaced during our meetings with the PJP panels.

One panel voted to mandate the tutor FTE generated through the at-risk formula be used for individual and small group tutoring.

Finally, many of the very smallest high schools that currently are funded as a small regular high school receiving the variety of small school adjustments are actually Alternative Learning Environment (ALE) High Schools, not just small regular high schools. Thus, one approach we will explore for high schools with fewer than 105 FTE will be to provide resources sufficient to educate students in these environments, such as staffing these schools at three FTE positions for every 24 ALE students. This would be a much simpler approach to making the small school adjustment and we think will allow those schools sufficient resources to meet the Educational Basket.

The issue with this approach in the short term is that not all districts identify separate ALE high schools, but simply have them as sort of "sub-programs" of the regular high school. Perhaps if the state had a specific funding formula for ALE schools, more districts and schools would explicitly designate such programs so, that over time, they could be funded as proposed here. This approach also requires that the state have "standards" for identifying ALE students and operating ALE programs.

Substitutes (May 30 draft, p. 53)

Generally, there was support for providing substitutes at the rate of 5 percent of ADM generated teachers. Support increased when we made it clear that these substitute days excluded substitute days for professional development, because other parts of the report provided for 10 pupil free days for teachers for professional development (and these funds could be used for substitute costs if the district decided to have professional development during the school year in a way that required the teacher to be absent from the classroom). Some districts, especially those in the Western part of the state, felt that the 5 percent was low because their absence rate was higher mainly due to travel associated with sporting activities. However, when we worked through the math most panelists agreed that the five percent figure probably was sufficient.

The major change proposal was that the rate of substitute pay needed to increase to some figure closer to $80 or $90 a day plus benefits.

Thus, *we would recommend that the substitute pay rate be increased to $85 per day plus benefits*. If districts could provide evidence that the need for substitutes, i.e., their budgeted substitute days, minus substitutes for professional development, were higher than 5 percent of ADM generated teachers, the state could then increase the 5 percent figure as well. But at this time we do not believe that is necessary.

Aides (May 30 draft, p. 53)

Initially, several individuals in most panels argued that instructional aides can be effective. When we explained that the same experimental research that backs small classes in elementary schools also found that instructional aides as teachers' helpers did not help to boost student performance, the arguments for aides declined. Others noted our comments that aides can be effective if they are selected on a literacy and numeracy basis, trained in a tutoring program, and supervised in providing tutors. They asked why the report didn't have a recommendation to provide aides under those assumptions. We responded that instead we proposed fully certified teachers as tutors in the at-risk section because research shows that teachers have a larger impact than trained aides. We also then showed that a district or school could "trade" 1.0 FTE teacher tutor position for approximately 2.0 FTE aide tutor positions if they wanted. These suggestions generated more support for the recalibration report's recommendation, which did not include any instructional aides.

There are no proposed changes for the recommendation on instructional aides.

Pupil Support Staff (Guidance Counselors, Social Workers, Nurses, Family Outreach, etc.) (May 30 draft, p. 55)

All panels discussed this issue extensively. Their primary concern was to insure that nursing resources were provided for the increasing health needs of students – taking prescription medications, accidents and emergencies, etc. Many panels noted that the standard for nurses is 1 FTE nurse for every 750 students, and suggested minimum nurse FTE for each prototype. Most panels began to design an alternative recommendation that specified nursing FTE as well as guidance counselor FTE. One panel almost approved a proposal for 1.0 nurse and 1.0 guidance counselor for the 288 prototypical elementary school, 315 prototypical middle school and twice those numbers for the 630 prototypical high school but then decided that the proposal in the document – 1.0 FTE for pupil support for every 100 at-risk students, plus an additional 1.0 FTE counselor position in the 315 middle school and an additional 2.4 counselor positions for the 630 pupil high school – was a more generous recommendation that actually provided districts more pupil support resources and allowed each district and school to deploy those resources across nurses and guidance counselors as they saw fit. In the end they decided to support the original recommendation.

We propose no changes in this recommendation.

Library/Media (May 30 draft, p. 57)

In our discussions with the PJP panels we clarified that the proposal in the May 30 report was that the librarian position is a certified position and the technicians' positions are classified or non-certified positions.

The two major issues that emerged in the discussions of these resources are whether the 105 student middle and high school prototypes should have a 1.0 librarian, so that the librarian could help teach the basket. We concur with this proposal. Some panelists also argued for a minimum 1.0 librarian for even the smallest elementary schools, but this was not a consensus proposal.

The other issue was whether the technology competence embodied in the library technician resources and the instructional facilitators (as we recommend that 0.5 FTE of the 1.5 FTE instructional facilitators for the elementary and middle school be for technology expertise) was sufficient. Generally, when we mentioned that technology expertise was embedded in both of these positions, panelists concluded that there was sufficient technology expertise in the prototypes – assuming the central office also include a higher level technology expert, which it does.

Thus, we recommend the following for librarian and library technician resources in the prototype schools :

	Elementary			Middle			High School			
	96	192	288	105	210	315	105	210	315	630
Librarian	0.5	0.75	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Library Technician				0.0	1.0	1.5	0.0	0.5	1.0	2.0

School Administration (May 30 draft, p. 58)

There were numerous discussions of whether the recommendations included sufficient administrative resources. The panels agreed strongly with the decision of the Select Committee at its May 26-27, 2005 meeting to provide at least 2.0 administrative positions in the 630 student high school. But there was considerable debate about whether additional administrative resources were needed for both the middle school and the high school. One panel ultimately decided that the middle school needed 1.5 administrators – 1 principal, and a 0.5 FTE for activities and sports. This panel then recommended that since the prototypical 630 student high school was twice as large as the prototypical 315 student middle school, the high school should have 3.0 FTE administrators. Another panel recommended that the prototypical elementary school have 1.0 admin positions, the middle school 2 and the high school 3 positions. A couple of panels concluded that the proposed administrative recommendations were fine as is.

We recommend retaining the recommendation decided upon by the Select Committee at its May meeting. But the Committee should be aware that many Wyoming educators believe that school-based administrative resources should be increased, particularly at the middle and high school levels.

Clerical Support (May 30 draft, p. 59)

Half the panels concluded that the recommended secretarial and clerical resources (2.0 for the 288 elementary, 2.0 for the 315 middle and 5.0 for the 630 high school) were adequate. Some panels, however, recommended more clerical support for both the middle and high school.

There are two issues that the Committee could consider:

a. A resourcing distinction could be made for senior secretarial positions and clerical/data entry positions. In prorating down to the smallest 96 and 105 prototypes the 1.0 senior secretarial position would be retained, and the proration to the smaller size would result in the elimination of the lower paid clerk position. This would resolve concerns that a more senior secretary was needed in the smallest middle and elementary schools as their job responsibilities were more complex and they were the only support position.

b. A couple of panels also wanted the system to insure that a full-time 9, 10 or 11-month position would quality for a full 1.0 year of experience each year, even though the position was not for a full 12 month time period. We concur with that recommendation.

Instructional Materials and Supplies (May 30 draft, p. 60)

The major issue that arose in this area was the reason behind the nominally higher instructional materials figure for elementary schools compared to middle schools. When the consultants responded that technically the figures were different, but practically they were the same (being $258 per pupil for the elementary and $243 for the middle level), one panel suggested averaging the two and moving forward with the same number for elementary and middle schools. We concur with this recommendation.

Though many wondered whether the totals were adequate, when reminded that the numbers in the document represent the figures from the 2002 recalibration document and need to be inflated up to the 2006-07 school year, most concluded that the figures were fine.

Thus, *we recommend that the following 2002 figures be used for instructional materials* and supplies *inflated up* to an appropriate level with the external cost adjustment for the 2006-07 school year, the year in which the recalibrated formula will be implemented.

	Elementary	Middle School	High School
Instructional Materials and Supplies	$250.50	$250.50	$306.72

Equipment and Technology (May 30 draft, p. 60)

The panels were very positive about treating expenditures for technology equipment and supplies as an operating and not a capital expense. Many who had viewed technology as a one time capital item were now struggling to upgrade and maintain outdated machines and were spending more than it would cost to acquire new machines either on a lease or purchase basis over an average of a 3-4 year replacement cycle.

Most panels agreed that the $250/pupil figure was adequate for school-based technology needs – hardware, software, security, and for application in the instructional and school management programs.

Several individuals commented that more technical, fixing support was needed, and many identified numerous individuals at both the central offices and the schools for that task. At the same time, many of these same individuals said their computers were outdated and the high cost of fixing them was largely due to outmoded technology. Most of these individuals also concluded that the $250/pupil figure would enable them to have newer equipment which would allow them to reduce their maintenance expenses.

We also would suggest that many districts either incorporate maintenance costs in lease agreements or, if purchasing the equipment, buy 24-hour maintenance plans. For example, for a very modest amount, one can purchase a maintenance agreement from a number of computer manufacturers that guarantees computer repair on a next business day basis. Panelists were concerned that it would be difficult for manufacturer's contractors to serve remote communities, but the maintenance agreement makes that the manufacturer's or contractor's problem and not the district's. Indeed, what these private sector companies often do is take a new computer with them, leave it, and take the broken computer to fix, which often turns out to be more cost effective than to send technicians all around to fix broken computers.

Two issues that need special attention:

1. Insuring that the $250/pupil is sufficient for small schools, especially those at or below the 96 and 105 student benchmarks.

2. Insuring that a sufficient technology figure is also recommended for the central office, as that level of each local district will run the district's wide area network and needs appropriate equipment and technology, as well as personnel support. Indeed, an

appropriately designed district WAN could update many software programs on school servers as well as fix many software glitches from the central office.

Food Services (May 30 draft, p. 66)

All panels and all districts represented knew that the current policy is for districts and schools to run self-supporting food service programs, and all but one district (Sheridan #2) said that their food service programs ran at a deficit. Deficits ranged from roughly $40/pupil to $135/pupil. However, the higher deficit districts also charged the lowest amount for meals, so one reason for higher deficits is a lower charge for each meal.

When we asked if there were private contractors to whom the districts could out-source food services, the near unanimous response was "no" – either there were no such companies in the rural areas or districts had had unacceptable experiences with the companies that existed in the larger communities.

Nearly all districts also stated that food service costs were likely to rise because of enhanced nutrition standards promulgated by the USDA. They were skeptical about whether they would be able to hike meal charges in line with these required higher costs.

It was not possible to fully understand why all districts were running food services deficits. This is perhaps an issue that deserves more analysis, before the state could identify whether deficits were unavoidable and required state financial assistance, as well as the level of financial assistance that treated all districts in a fair and equitable manner. For example, if the state were to adopt a per pupil subsidy for food services, it would need to determine the subsidy by offsetting costs with meal prices that were comparable across districts.

Special Education (May 30 draft, p. 67)

Unsurprisingly, there was strong, unanimous consensus to keep the current policy for 100 percent cost reimbursement for special education services and expenses.

We discussed the alternative of census funding for the high incidence, low cost services for disabled individuals, but the current policy of 100 percent cost reimbursement for all services was preferred.

We did ask all panels what was done with the federal Title VIb funds, which they also receive for special education services. All panels said that these funds were used for services that were separate and different from the services that were submitted for state cost reimbursement.

We should note that state expenditures for special education, which totaled about $110 million in the 2003-04 school year, combined with approximately $44 million received through federal Title VIb, equals roughly $154 million spent on special education services, compared to about $660 million spent on all other K-12 education services (excluding facilities).

Gifted and Talented (May 30 draft, p. 71)

As hoped for by the Committee, we stimulated animated discussions of the current state approach to the Gifted and Talented, and received numerous proposals for enhancing the state role.

To begin the conversations, we reiterated our understanding of the research on best practices in serving gifted and talented students, which for elementary and middle schools, in the first instance, is to pull gifted students out of regular classes and place them in special classes and accelerate their instruction as they can learn much more in a given time period than other students, and in the second instance when the pull out and acceleration approach is not possible, to have them skip grades in order to be exposed to accelerated instruction. Since both of these strategies are essentially no cost, it produced the consultants' support for continuing the current state role.

The primary approach to serve gifted students in high schools is to enroll them in advanced courses – advanced placement (AP), International Baccalaureate (IB) and or to participate in dual enrollment in postsecondary institutions, the latter of which is already funded by Wyoming. The $10/ADM grant was sufficient to pay for AP fees and test costs.

We found that Natrona School District actually was operating a program that reflected the first service approach – pull out and acceleration. Natrona has created three accelerated classes for gifted children: a K-3 class, a grade 4-5 class and a grade 6-8 class, with the first two having about 16 students and the third about 21 students, all at the average funding for elementary and middle schools. This approach is essentially a no cost approach, except possibly for some professional development for teachers (which can easily be accommodated within our professional development recommendations) and some supplies, which could be purchased with the $10/ADM state grant.

But Natrona is able to have sufficient numbers of students for these pull out classes largely because of its large size, as it is the largest school district in the state. Other districts have identified gifted students but do not have the numbers to run a full accelerated class at normal class sizes for such students.

For whatever reasons, even though supported by research, panelists did not like the grade-skipping approach.

Thus, most districts that provided special services for gifted students hired staff at the central office that traveled to the different schools to provide enrichment and pull out services for the identified students. These programs roughly cost from $20/ADM to $100/ADM, with most of the programs costing between $75 and $100/ADM. Most districts also placed gifted students in AP or IB classes in high schools, or had them engage in post secondary dual enrollment.

Several panelists also said that their districts had gifted students enroll in advanced courses provided on the Internet, and that such courses were available for students at essentially all grade levels. Such approaches are very cost effective.

Nevertheless, if the Committee wants to support a gifted and talented servicing approach for elementary and middle school students that entails central office teaching staff traveling over the course of a week across the schools in the district to provide enrichment and other special services for gifted students, it would need to increase the current $10/pupil grant to someplace between $75-100/ADM, for students in grades K-8, as we address resources for high school students in a latter section.

The state could develop rules and regulations about appropriate services for gifted students, which would say that the preferred approach is pull out and placement in accelerated classes, as Natrona is doing, the secondary approach is grade skipping for districts not large enough to create accelerated classes around 16 elementary students and 21 secondary students, and that the tertiary approach could be online courses. And all of these could be funded by the current $10/ADM grant. The Committee could also add a fourth approach, and provide $75-100/K-8ADM for central office staff to move about schools to provide appropriate services.

A current State Department of Education Task Force is assessing the issue of services for gifted and talented under the current state grant and that Task Force might produce additional ideas on this issue.

A few panelists suggested the state allow districts to treat gifted and talented students via IEP, like special education students, with the state fully reimbursing districts for whatever services are provided according to the IEP. We do not recommend this approach at this time, as the above recommendations both align with evidence and best practices, and are cost-based.

Vocational Education (May 30 draft, p. 75)

We had good discussions of the current vocational education funding approach with all panels, and not surprisingly, all panels stated that the vocational education funding approach was too complicated and seemed not to be very transparent.

As we wrote in the May 30 draft report for the Professional Judgment Panels:

> In 2001, the Wyoming Supreme Court ruled that basing vocational funding on average statewide education expenditures penalized schools with extensive programs. The Court ordered the state to develop a procedure for distributing resources to account for the increased cost of providing vocational education *and* to recognize variation among schools in the intensity of services provided.

The Current Model, therefore, was designed to respond to that court decision and has the following characteristics:

- *Compensates for the additional cost of providing vocational education, which are largely smaller classes.*
  The formula requires each district to count all vocational education students and convert them to an FTE basis. These students are then given an extra weight of 0.29 to trigger additional teacher resources that are required for the lower vocational education class sizes. When the 2002 vocational education study was conducted, this extra weight produced an average of a 13.0 student-teacher ratio in the school including vocational education teachers compared to a 16.7 ratio for other courses when vocational classes were excluded.

- *Adjusts for differences in student participation across districts to reflect the variation in vocational education programs and courses offered across districts.*
  As noted above, the state requires each district to count the FTE students in vocational education programs, so the extra weight of 0.29 for these students applies to a varying percentage of students in each district, based on the number of students actually participating in vocational coursework. This percentage of students may vary for a variety of reasons, including differences in district educational philosophies, regional economics, and local preference for services.

- *Provides separate funding for vocational equipment and supplies*
  Funds for vocational equipment and supplies are based on the number of FTE vocational instructors within a district, with funding based on average statewide equipment and supply expenditures for the 2001-02 school year. The 2002 figure needs to be inflated up to an appropriate 2005-06 figure. Supplemental funding is also provided (equal to 50 percent of 2001-02 equipment expenditures) to replace obsolete equipment.

We conclude that these three elements respond appropriately to the 2001 court mandate. In addition, the current system:

- *Ensures that small schools are able to offer quality services*
  The current system applies supplemental weighting to FTE vocational students attending schools with fewer than 131 ADM students to ensure that small schools can offer a two-program minimum. Given the more generous staffing provided by our recommendations for the high school prototypes, we believe this adjustment is required for high schools with an ADM at 105 or lower, not the 131 figure. But some adjustment will be required to enable high schools smaller than 105 to offer a minimum of two vocational program.

- *Accounts for vocational program start-up costs*
  Separate funding is provided, via a competitive grant program, to support districts in introducing new programs.

In short, the current approach to vocational education funding is to count all students in vocational education programs, convert them to an FTE figure, provide them an extra weight of 0.29 to trigger additional teacher resources, and provide an additional sum of money per FTE vocational education teacher for equipment and supplies for vocational education programs. For example, assume 210 students were taking vocational education programs in a high school. Also assume a 7 period day. This 210 figure would need to be divided by 7 to convert the number to an FTE figure; this calculation produces 30 additional FTE students. These students would produce (30/21) 1.43 additional teachers. The additional FTE students are divided by 21, the class size figure that determines high school teachers. If the school had a total of 4 vocational education teachers, the school would receive the additional resources for materials and equipment for each of the four teachers. These elements both recognize the variation in vocational education services that districts provide and cover the extra costs (smaller class sizes and more expensive equipment) for vocational education programs.

Therefore, *we recommend that this basic approach to vocational education funding be retained*.

We will determine a modified adjustment to this basic approach for high schools with ADM below the smallest 105 ADM in the prototypical high schools.

We also offer a somewhat different, more "census-based" approach for providing resources for both vocational education and advanced courses in the next section.

In addition to high school vocational education programs, many panelists stated that additional resources were needed for vocational education programs in middle schools. However, the 2002 vocational education study addressed the issue of whether there were additional costs for middle school vocational education programs, and concluded that there were not (Klein, Hoachlander, Bugarin & Medrich, 2002, p. 15). Thus, we do not recommend that additional resources be provided for middle school vocational education programs.

Advanced Courses in High School

Nearly all panels, as well as the Select Committee, raised the issue of the need for extra teaching resources to enable high schools to provide advanced courses for the top students, including Advanced Placement courses and the International Baccalaureate.

If the Committee chooses to provide these resources, we would recommend an approach similar to that which triggers additional vocational education courses:

a. Create a procedure for all schools to identify the number of students in advanced academic classes; over time, it would be wise for the state to have standards for such classes.

b. Convert the number of students in those classes to an FTE by dividing by 7.

c. Trigger additional teacher resources by using the same weight as vocational education, so multiply the additional FTE students by an extra weight of 0.29 and divide by 21 to identify additional teacher resources for advanced academic high school courses.

The consultants will try to estimate the number of students currently enrolled in such courses, perhaps limiting the analysis to AP and IB classes by reviewing data in the current system. If such data do not exist, we will attempt to conduct a quick survey of superintendents so we could have preliminary numbers on this recommendation for the August meeting of the Select Committee.

An alternative approach would be to assume that all high school students took some combination of advanced academic courses and vocational education courses. If this assumption were taken, one could simply take the entire high school ADM, multiply it by the extra weight of 0.29, and then divide that by 21 to produce the additional teachers that could be deployed for either vocational education or advanced courses. This would not exactly recognize specific variation in provision of advanced and vocational education programs, but it would be easier to administer and allow local districts to determine the mix of these more expensive program offerings. In a prototypical high school of 315 students, the extra weight of 0.29 would produce an additional student FTE of 91.35, which divided by 21, produces an additional 4.35 teachers for vocational education and advanced course offerings.

Student Activities (May 30 draft, p. 77)

All panels made the point that the proposals for student activities were substantially below what schools actually spend on those activities. Several panelists had figures from 2003-2004 showing that the total reimbursement from the state funding formula for student activities totaled about $11 million, whereas actual expenditures totaled $21.2 million, or $9.2 million more. The differences were primarily in secondary student activities expenditures, as the following chart shows (data taken from the documents provided to us):

Grade Level	2003-04 ADM	Reimbursement Rate	Actual Expenditures Per ADM
K-5	33,549	$15.78	$17.95
6-8	20,643	$102.81	$227.63
9-12	26,545	$311.28	$561.37
Overall Total/Average	80,738	$135.19	$250.23

If the Committee wishes to reimburse actual expenses for student activities expenditures, it could increase the reimbursement to the numbers above, which vary by grade level, or it could increase the figure to an overall figure of $250 per ADM.

If the Committee were to move to a full reimbursement approach, it might also want to establish standards for activities costs so that the reimbursement would be for costs that the state wishes to reimburse.

Professional Development (May 30 draft, p. 78)

There was near unanimous support for the professional development recommendations, including the instructional facilitators.

The specific cost elements of the recommendations that remain the same are:

a. Provide an additional five days of teacher pay so each district can provide 10 student free days for professional development. The five days will be costed at the average teacher salary in each district.

b. Provide an additional $100/ADM for trainers, which either could be trainers brought in as consultants or district central office or other staff, depending on how each district organized it professional development programming.

One panel strongly suggested that an additional 5 days also be provided for administrators. Since most administrators work a longer year than teachers, usually under a 10-12 month contract, professional development normally would be part of that longer contract. Districts need to be encouraged to insure that adequate professional development time is provided for administrators under these longer contract years.

External Cost Adjustment

We hope to have a short paper on the external cost adjustment prepared for the June 30-July 1 meeting; if not at that time, a report will be available for the meeting at the end of August.

Regional Cost Adjustment

We hope to have a short paper on the regional cost adjustment prepared for the June 30-July 1 meeting; if not at that time, a report will be available for the meeting at the end of August.

Teacher Salaries and Benefits

The teacher salary analysis will not be concluded until after we receive the 2004-05 school year data, which we anticipate receiving in late August or early September.

The panels did, however, suggest that the benefit rate now being used, 19%, be increased to cover other benefits that they are required to provide. The following represent the benefits most districts must pay and an approximation of the statewide figures:

Retirement	5.68 % district share 5.57 % employee – now also covered by districts and state
Social security/Medicare	7.65 %
Workers compensation	0.75 % average
Long term disability	0.50 %.

Summing these figures would produce a benefit percentage total closer to 20.15%. We will conduct an assessment of actual benefit costs across the districts to insure the accuracy of the figure that is eventually used.

Health care costs were identified as an issue with many panelists arguing for a higher reimbursement for family health coverage. We are developing an approach for insuring both adequate funding for these benefits and a way to insure that districts receive adequate funding for health benefits between recalibration efforts. We anticipate that a recommendation on this will fit in with the larger issues of the external cost adjustment and the regional cost adjustment. Our goal is to provide adequate levels of funding, but not double count rates of inflation or cost growth.

Benefits are part of the same study of teacher and administrator salaries and benefits, the results of which will not be available until early Fall.

Assessment

We currently are working on a paper on this issue, and hope to have a proposal by the August meeting of the Committee. We are currently working to determine the level of resources required to meet the new "Body of Evidence" assessment requirements as well as other assessment requirements across the state.

Custodial (May 30 draft, p. 84)

There was general support for the new formula, with one major exception. Nearly all panels noted that high school and even middle schools stay open for longer than the school academic day, and need evening custodians to clean after such events. They suggested that hours opened be included somehow in the formula.

We are investigating how that concern can be accommodated.

Panelists also noted the need for groundskeepers, an issue which we address below in the central office operations and maintenance section.

Maintenance

We will provide data and recommendations at the meeting on June 30.

Central Office Operations and Maintenance, including Groundskeepers

We will provide data and recommendations at the meeting on June 30.

Central Office Administration (May 30 draft, p. 91)

We were very explicit with all panelists that we had concluded that the staffing for central office FTE were more than were needed, and that we essentially were recommending the following central office staff:

Districts with ADM less than or equal to 500:	2 administrative and 2 clerical
Districts with ADM of 1000:	4 administrative and 4 clerical.

Panelists generally agreed with our conclusion that the current system was not calibrated at the correct levels.

The issue of the need for central office technology support entered nearly all discussions on this issue. One panel recommended that we modify our proposal for the 500 and less ADM districts to 3 administrative and 3 support, so that a technology director could be included. At the 1000 student level, this panel said the 4 administrative positions could then be a superintendent, a business officer, a technology director and an assessment director.

We concur with this panel's recommendation and alter our recommendation to this proposal to include a technology director for school districts with fewer than 500 ADM.

We should note that all central office administrative support for special education and transportation are included in the 100 percent state reimbursement for all costs for these functions.

Security and Safety (May 30 draft, p. 99)

We are currently analyzing security and safety expenditures incurred by districts. The following is what we have written in the May 30 draft of the recalibration report, and until we are able to analyze current expenditures, we will not be able to have a more specific recommendation for this issue:

> At its May 26-27, 2005 meeting in Casper, the Select Committee began to raise the issue of security and safety needs for Wyoming's schools. Currently, many districts receive services from the local police department, which often deploy "district resource officers" to work in the school system. Increasingly, these expenditures are being transferred to school districts. In addition, many districts provide security staff at specific schools for multiple reasons. Third, the Facilities Commission believes it will soon be receiving requests to embed security systems into school buildings, the result in part of issues related to Homeland Security.

For these reasons, there may be a need to add resources for safety and security for schools and districts. In the short term, the state could create a grant program, or perhaps an interim "dollar per ADM" program, to provide some security and safety assistance in the very short term. We also will survey districts to get a quick understanding of current security and safety expenditures, though we know the results will only be a "rough" indication of need for these services. The results, though, could help guide allocation of the short term grant. Since analysis of this issue is beyond what can be accomplished during the recalibration effort, we would propose that the state create a more comprehensive project to research safety and security issues in schools, with the goal of proposing how the state should include such needs in its school funding system.

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Table M1
Summary of Personnel By Prototype

Personnel Resource Category	Elementary			Middle			High School			
School Enrollment	**96**	**192**	**288**	**105**	**210**	**315**	**105**	**210**	**315**	**630**
Core Teachers	6.0	12.0	18.0	5. 0	10.0	15.0	5.0	10.0	15.0	30.0
Specialist Teachers	2.4	4.8	7.2	2.0	4.0	6.0	2.0	4.0	6.0	12.0
Instructional Facilitators	0.5	1.0	1.5	0.5	1.0	1.5	0.5	1.0	1.5	3.0
Teacher Tutors (state avg.)	0.4	0.8	1.2	0.5	0.8	1.3	0.5	0.8	1.3	2.6
ELL Teachers	0.05	0.10	0.15	0.05	0.10	0.16	0.05	0.10	0.16	0.32
Extended Day Program	0.33	0.67	1.0	0.33	0.67	1.0	0.33	0.67	1.0	2.0
Summer School	0.33	0.67	1.0	0.33	0.67	1.0	0.33	0.67	1.0	2.0
Substitutes	5 % of ADM generated teacher positions									
Aides	0.67	1.33	2.0	0.67	1.33	2.0	0.67	1.33	2.0	4.0
Pupil Support	0.4	0.8	1.2	0.73	1.46	2.2	0.8	1.6	2.4	4.8
Librarian media technician	0.5 0.0	0.75 0	1.0 0	1.0 0	1.0 1.0	1.0 1.5	1.0 0	1.0 0.5	1.0 1.0	1.0 2.0
School Administration	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
Clerical/Data Entry	0.67	1.33	2.0	0.67	1.33	2.0	1.0	1.8	2.5	5.0
Special Education	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Custodial	1.0	1.5	2.0	1.0	1.5	2.0	1.0	1.5	2.0	4.0

APPENDIX
Rationale for Prototypes for K-8, 7-12 and K-12

Prototype Size: We conducted an analysis of actual enrollment for each prototype that included both standard schools and collocated schools, but excluding schools with these grade configurations that are designated as alternative schools. The number of schools as of 2003-04 were:

- K-8: 14 standard schools, including 1 K-9 and 5 colocated schools that combine into K-8
- 7-12: 4 standard schools, including 1 6-12 and 7 colocated schools that combine into 7-12, including 1 6-12
- K-12: 3 standard schools and 11 colocated schools that combine into K-12

There are also a couple of 8-12 schools that we did not include. These could easily be treated as a high school in the model.

We looked at the median size for each of the school configurations as well as the average blend of grade levels and then adjusted so that a whole number teacher FTEs could be calculated for each grade level in a school. These came out to:

- K-8: The true median is 33 students, but the next step up from the median is about 150. We settled on 175 with roughly 65% K-5 and 35% 6-8. This produces 7.0 core elementary teachers and 3.0 core MS teachers. There are 11 K-8 schools under 100 (under 50 actually) and a minimum of 1 student and a max of 298.

- 7-12: The true median is 186. We adjusted it up to 189 with approximately 33% MS and 67% HS. This produces 3.0 core MS teachers and 6.0 core HS teachers. There are 4 7-12 schools under 100, with a min of 57 and a max of 377.

- K-12: The true median is 168. We adjusted it up to 169 with approximately 40% elementary, 25% MS and 35% HS. This produces 4.0 core elementary teachers, 2.0 core MS teachers and 3.0 core HS teachers. There are 2 K-12 schools under 100, with a min of 67 and a max of 420.

There were several options for approaching this, but we decided to try to make the prototypes as neutral as possible to prevent districts from gaming their school configurations to take advantage of our prototypes. So, in general, elementary, MS and HS students are treated as such in each prototype. Where staffing is the same across grade levels, we applied the same staffing rule for the entire enrollment. Where staffing differed by grade level, we tried to differentiate as well. You can follow the distinctions among grade levels in the table below. In most cases we tried to simply prorate down from our elementary, MS and HS prototypes. We also used the table in the synthesis memo, and where decisions appeared to be made to standardize staffing, such as for librarians and custodial, we followed the same logic applicable for the size of the prototype.

We could generate some additional prototype sizes for each grade configuration. Based on the actual size of schools out there, K-8 prototype schools of roughly 130 or 140 and 260, 7-12 prototypes of roughly 105 and 220, and K-12 prototypes of roughly 105 and 315 might make sense.

Table A1
Summary of Personnel for New Prototypes

Personnel Resource Category	K-8			7-12			K-12			
	K-5	6-8	Total	6-8	9-12	Total	K-5	6-8	9-12	Total
School Enrollment	112	63	175	63	126	189	64	42	63	169
Core Teachers	7.0	3.0	10.0	3.0	6.0	9.0	4.0	2.0	3.0	9.0
Specialist Teachers	-	-	4.0	-	-	3.6	-	-	-	3.6
Instructional Facilitators	-	-	1.0	-	-	1.0	-	-	-	1.0
Teacher Tutors (state avg.)	-	-	0.7	-	-	0.8	-	-	-	0.7
ELL Teachers	-	-	0.9	-	-	0.9	-	-	-	.09
Extended Day Program	-	-	0.6	-	-	0.67	-	-	-	0.6
Summer School	-	-	0.6	-	-	0.67	-	-	-	0.6
Substitutes	5 % of ADM generated teacher positions									
Aides	0.8	0.4	1.2	0.4	1.0	1.4	0.4	0.3	0.5	1.2
Pupil Support	0.5	0.4	0.9	0.4	1.0	1.4	0.3	0.3	0.5	1.1
Librarian			0.6			1.0				1.0
Media Technician	0.0	0.3	0.3	0.3	0.4	0.7		0.2	0.2	0.4
School Administration	-	-	1.0	-	-	1.0	-	-	-	1.0
Clerical/Data Entry	-	-	1.5	-	-	1.5	-	-	-	1.5
Special Education	-	-	100%	-	-	100%	-	-	-	100%
Custodial	-	-	1.5	-	-	1.5	-	-	-	1.5